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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,694	09/17/2003	Howard E. Rhodes	M4065.0747/P747	3975

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EXAMINER

GARCIA, JOANNIE A

ART UNIT	PAPER NUMBER
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2823

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/663,694	Applicant(s) RHODES, HOWARD E.	
	Examiner Joannie A Garcia	Art Unit 2823	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-83 is/are pending in the application.
 4a) Of the above claim(s) 67-83 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 25-30, 32-34, 36-46 and 48-51 is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 5, 7-9, 11-16, 19, 20 and 22-24 is/are rejected.
- 7) ☒ Claim(s) 3, 6, 10, 17, 18, 21, 31, 35, 47 and 52-66 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20040807</u> . | 6) <input type="checkbox"/> Other: ____. |

Applicant's election without traverse of claims 1-66, Group I, in the reply filed on 05-28-04 is acknowledged.

Claims 12, 21, 24, 31, 35, 47, and 52-66, are objected to because of the following informalities:

In claims 12, 31, and 47, line 2, "as a mask" should be preceded by --used--.

Claim 21 recites the limitation "masked spacer etch" in line 1. There is insufficient antecedent basis for this limitation in the claim.

In claim 52, line 10, "said gate structure" should be preceded by --of--.

Appropriate correction is required.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1, 2, 4, 5, 7-9, 11-16, 19, 20, and 24, are rejected under 35 U.S.C. 102(b) as being anticipated by Chiang et al (U.S. Patent 6,306,678).

Chiang et al discloses a method of producing a reset gate CMOS imaging device comprising forming a photosensitive region 20 such as a photodiode (Abstract, Figure 1B, Column 2, lines 61-63, and Column 3, lines 56-57), wherein the imaging device has periphery circuits (Column 1, lines 51-56, Column 3, lines 39-44), forming an N- active area diffusion region 5 (Figure 1B, and Column 3, lines 31-38), forming a gate structure 4/3 (Figure 1B),

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wherein the gate structure comprises a gate oxide 3 and a polysilicon gate conductor 4 (Figure 1B, and Column 3, lines 12-15), forming an oxide insulating layer 8a over the photosensitive region, the gate structure and the diffusion region (Figure 3, and Column 4, line 19), removing a first portion of the insulating layer over the diffusion region, leaving a spacer 8c at a side of the gate structure and leaving a second portion of the insulating layer over the photosensitive region (Figure 4), wherein the first portion of the insulating layer is removed from over an N- active area (Figure 4, and Column 3, lines 31-38), and wherein the spacer is left on at least one side of at least one gate structure (Figure 4), or on both sides of at least one gate structure (Figure 4), and wherein the spacer is formed by a masked spacer etch (Figure 4, and Column 4, lines 19-30), and implanting n-type dopant with the spacer used as a mask (Figure 5).

Claims 22 and 23, are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiang et al as applied to claims 1, 2, 4, 5, 7-9, 11-16, 19, 20, and 24 above, and further in view of the following comments.

With respect to claims 22, and 23, it would have been a matter of routine optimization within the teachings of Chiang et al to determine a suitable thickness to achieve the insulating layer 8a formation step.

Notwithstanding, it would have been an obvious matter of design choice bounded by well known manufacturing constraints and ascertainable by routine experimentation and optimization to choose these particular dimensions because applicant has not disclosed that the dimensions are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical, and it appears prima facie that the process would possess utility using another dimension. Indeed, it

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has been held that mere dimensional limitations are prima facie obvious absent a disclosure that the limitations are for a particular unobvious purpose, produce an unexpected result, or are otherwise critical. See, for example, *In re Rose*, 220 F.2d 459, 105 USPQ 237 (CCPA 1955); *In re Rinehart*, 531 F.2d 1048, 189 USPQ 143 (CCPA 1976); *Gardner v. TEC Systems, Inc.*, 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984); *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

Claims 3, 6, 10, 17, and 18, are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 21, 31, 35, 47, and 53-66, would be allowable if rewritten to overcome the objection(s) set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 52 would be allowable if rewritten or amended to overcome the objection(s) set forth in this Office action.

Claims 25-30, 32-34, 36-46, and 48-51, are allowed.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956 until 2/4/04. See MPEP 203.08.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Joannie Adelle García whose telephone number is (571) 272-1861. The examiner can normally be reached on Monday through Friday.

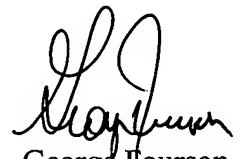
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Olik Chaudhuri, can be reached on (571) 272-1855. The fax number for this group is 703-872-9306 for before final submissions, 703-872-9306 for after final submissions and the customer service number for group 2800 is (703) 872-9317. Updates can be found at <http://www.uspto.gov/web/info/2800.htm>.



JAG

August 7, 2004

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